

Remarks

Claims 1-12 are currently pending in the present application. Claims 1-12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's admitted prior art, hereinafter collectively referred to as Applicant's Prior Art, in view of U.S. Patent No. 6,093,144 to Jaeger et al., hereinafter referred to as "Jaeger". In view of the following remarks, reconsideration and withdrawal of this ground of rejection is requested.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's Prior Art (Figures 1(a) and 1(b), pages 1-2, paragraphs [002] – [007]; page 3, paragraph [0015] of the present application), in view of Jaeger. For the reasons set forth below, reconsideration and withdrawal of this ground of rejection is respectfully requested.

With regard to claim 1, claim 1 recites:

A microphone enclosure comprising: a casing for containing a microphone for receiving sound and converting said sound into at least one electrical signal; and at least one inlet for allowing sound to reach said microphone; said at least one inlet having a plurality of openings forming at least one tortuous path therein, wherein said microphone is disposed between said at least one inlet and a wall of the casing such that sound can only impinge upon the microphone by traveling through said at least one inlet. [emphasis added].

As indicated above, claim 1 requires a microphone enclosure comprising at least one inlet having a plurality of openings that form at least one "tortuous path" therein. This "tortuous path" feature refers to a path formed by the plurality of openings, such that sound may only impinge upon the microphone by traveling through one or more of the openings. (see page 5, paragraph [0021] of the present application). As illustrated in Figure 2(b) of the present application, the "tortuous path" not only enables the free flow of sound over the microphone, it also prevents the microphone from

easily being damaged by a wire or similar means, and ensures that particles do not become lodged in the inlet (see, page 5, paragraph [0021] of the present application).

To the contrary, Figure 1(b) of Applicant's Prior Art teaches a single non-tortuous inlet (108) and 'teaches away' from a microphone enclosure having an inlet with a "plurality of openings" forming a "tortuous path", which is described in detail below. (emphasis added).

A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant...[or] if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant. See, Tec Air, Inc. v. Denso Manufacturing Michigan Inc., 192 F.3d 1353 (Fed. Cir. 1999). With regard to a combination of references, if when combined the references would produce an inoperative device, then they teach away from the combination. Id.

Referring again to Applicant's Prior Art, particularly to Figure 1(b), one of ordinary skill in the art would not be motivated to modify Figure 1(b) with the inlet ports (242) disclosed in Jaeger. (see Figures 2A-2C of Jaeger). As noted above, Figure 1(b) shows a microphone enclosure with a single non-tortuous inlet (108). (emphasis added). This inlet (108) is specifically designed with a change of direction for preventing an object from entering the inlet (108) far enough to pierce the microphone gasket or the microphone itself. (see page 3, paragraph [0015] of the present application). Modifying this inlet (108) with the inlet ports (242) taught in Jaeger would compromise this protective feature required by the Figure 1(b) enclosure.

Referring now to Figures 2A-2C of Jaeger, a protective cover (240) having a plurality of inlet ports (242) distributed throughout the protective cover (240) is shown. Since this protective cover (240) is designed to protect an implantable microphone device (100), i.e., a device (100) for use

inside a human body, there is little chance of wires or similar foreign objects entering and damaging the microphone component (208). (see column 4, lines 40-49 of Jaeger). As a result, the inlet ports (242) disclosed in Jaeger are mere cover openings whose sole function is to allow sounds to freely travel to the microphone membrane uninhibited. (see column 6, lines 24-32 of Jaeger). As further illustrated in Figures 2A-2C of Jaeger, these inlet ports (242) do not form an inlet providing for a protective change of direction, nor are they designed to in anyway inhibit wires or similar foreign objects from penetrating and damaging the enclosed microphone (208). Thus, one of ordinary skill in the art would not be motivated to modify the Figure 1(b) enclosure with the inlet ports (242) disclosed in Jaeger, as to do so would compromise the protective design feature of the Figure 1(b) enclosure, rendering it “inoperable”. As noted above, a combination of references which results in an inoperative device cannot form the basis for an obviousness rejection.

Furthermore, the Examiner has failed to establish that it would have been obvious to one of ordinary skill in the art to combine Applicant’s Prior Art with Jaeger, or that such a combination would fall within the parameters of claim 1.

To establish a *prima facie* case of obviousness, three basic criteria must be met: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art reference (or references when combined) must teach or suggest all the claim limitations. See, M.P.E.P. 2142 (Eighth Edition, Feb. 2003).

As a threshold matter, there must be some teaching, suggestion or motivation in the prior art to make the specific change made by the applicant. In re Dance, 160 F.3d 1339, 1343 (Fed. Cir. 1998). Obviousness should be measured “at the time the invention was made” (i.e. the filing date of

the application), and with no prior knowledge of the applicant's disclosure. In re Dembiczak, 175 F.3d 994, 998-999 (Fed. Cir. 1999).

Obviousness cannot be established by hindsight combination to produce the claimed invention. In re Dance, 160 F.3d. at 1343. The Examiner must show reasons why the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the prior art references for combination in the manner claimed. In re Rouffet, 149 F.3d 1350, 1357 (Fed. Cir. 1998).

In the present case, the Examiner has failed to identify a motivation, teaching or suggestion in either the Applicant's Prior Art or in Jaeger which would have lead one of ordinary skill in the art to combine them. Applicant's Prior Art is directed to microphones used in, for example, portable hand held radios or cellular telephones that may be exposed to adverse environmental conditions, such as exposure to rain, immersion in water, or a wire potentially damaging the microphone. Jaeger, on the other hand, does not disclose a microphone exposed to any adverse environmental conditions. Instead, Jaeger discloses a microphone used in hearing aids, in particular, implantable hearing aids, which of course are not exposed to the environment at all.

Even if, arguendo, the Examiner could establish a motivation to combine, the Examiner has failed to specify how the combination of these references would provide an operative microphone enclosure which includes an inlet with a "plurality of openings" forming a "tortuous path."

As noted above, Applicant's Prior Art shows a microphone enclosure with a single non-tortuous inlet (108). Jaeger shows a protective cover (240) with a plurality of inlet ports (242), but fails to disclose, teach or suggest a "tortuous path" to the microphone (208). Therefore, if Jaeger and Applicant's Prior Art were combined, the resulting device would not meet all the limitations of claim 1 (i.e., the combination will not meet the limitations of an inlet with a "plurality of openings")

forming a “tortuous path”). Accordingly, Applicants respectfully submit that claim 1 is patentable over Applicant’s Prior Art in view of Jaeger, and respectfully request reconsideration and withdrawal of this ground of rejection with respect to claim 1.

Claims 2-5 depend from claim 1, which Applicants respectfully submit is patentable over Applicant’s Prior Art in view of Jaeger. Thus, reconsideration and withdrawal of this ground of rejection with respect to claims 2-5 is respectfully requested for the same reasons discussed above with respect to claim 1.

Regarding claim 6, claim 6 contains similar limitations to those discussed above with regard to claim 1. In particular, claim 6 requires “at least one inlet formed by a convergence of [a] first opening and [a] second opening for allowing sound to impinge upon said microphone”. As noted above, Applicant’s Prior Art discloses a single opening (108) and the inlet ports (242) disclosed in Jaeger are mere cover (240) openings positioned to enable sound to freely reach the microphone (208). These openings (242) do not converge nor do they form an inlet as required by the present invention. (see Figures 2A-2C of Jaeger). Accordingly, for at least those reasons discussed above with regard to claim 1, reconsideration and withdrawal of this ground of rejection with respect to claim 6 is respectfully requested.

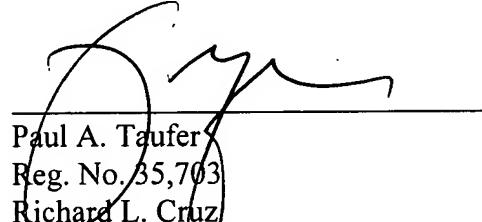
Claims 7-9 depend from claim 6. Thus, Applicants respectfully submit that claims 7-9 are patentable over Applicant’s Prior Art in view of Jaeger for the same reasons described above with regard to claim 6. Thus, reconsideration and withdrawal of this ground of rejection with respect to claims 7-9 is respectfully requested.

Regarding independent claim 10, claim 10 discloses similar limitations to those discussed above with regard to independent claims 1 and 6. Specifically, claim 10 recites “at least one inlet formed by a convergence of [a] first opening and a second opening for allowing sound to impinge

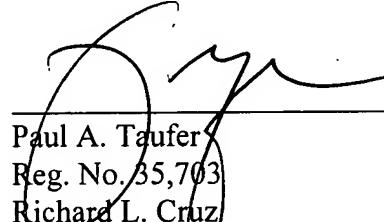
upon [a] microphone...". As discussed above, neither Applicant's Prior Art nor Jaeger disclose, teach or suggest "at least one inlet for allowing sound to reach said microphone...having a plurality of openings forming at least one tortuous path therein". Hence, for at least those reasons discussed above with reference to claims 1 and 6, reconsideration and withdrawal of this ground of rejection with respect to claim 10 is respectfully requested.

Claims 11-12 depend from claim 10, which Applicants respectfully submit is patentable over Applicant's Prior Art in view of Jaeger. Accordingly, reconsideration and withdrawal of this ground of rejection with respect to claims 11-12 is respectfully requested for the same reasons described above with regard to claim 10.

Respectfully submitted,



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